

Appl. No. : 10/802,593  
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## AMENDMENTS TO THE SPECIFICATION

Please amend the title of the invention as follows:

### PHOTO-DIODE HAVING A HIGH CHARGE DENSITY PORTION IN A FIELD CONTROLLING LAYER AND METHOD FOR FABRICATING THE SAME

Paragraph No. 0069 of the specification has been amended as follows:

[0069] Herein, the n-InP buffer layer 102 is formed of the same material as that of the n-InP substrate 101, thereby enabling the semiconductor layer, which is to be grown in a later process, to be easily connected to the substrate. Also, the n-InAlAs buffer layer 103 is required for facilitating the growth of the InAlAs and InAlGaAs layers of the amplifying layer 104 having the superlattice structure. In addition, the amplifying layer 104 formed of a plurality of InAlAs and InAlGaAs layers alternately deposited on one another and grown to form the superlattice form, and amplifying signal current. Also, in order to amplify the current by an avalanche phenomenon, a high electric field of  $\sim 600 \text{ kV/cm} \pm 10\%$  is applied to the amplifying layer 105.